

**EXHIBIT 8**

**DECLARATION OF IRENE YANG IN SUPPORT OF HUAWEI'S OPPOSITION TO  
SAMSUNG'S MOTION TO STRIKE PORTIONS OF HUAWEI'S EXPERT REPORTS**

**UNITED STATES DISTRICT COURT  
NORTHERN DISTRICT OF CALIFORNIA  
SAN FRANCISCO DIVISION**

HUAWEI TECHNOLOGIES CO., LTD.,  
HUAWEI DEVICE USA, INC., and  
HUAWEI TECHNOLOGIES USA, INC.,

Plaintiffs / Counterclaim-  
Defendants,

v.

SAMSUNG ELECTRONICS CO., LTD.,  
SAMSUNG ELECTRONICS AMERICA,  
INC.,

Defendants / Counterclaim-  
Plaintiffs,

and

SAMSUNG RESEARCH AMERICA,

Defendant,

v.

HISILICON TECHNOLOGIES CO., LTD.,

Counterclaim-Defendant.

Case No. 3:16-cv-2787-WHO

**SECOND SUPPLEMENTAL EXPERT REPORT OF VIJAY K. MADISETTI, PH.D.  
REGARDING INVALIDITY**

(June 27, 2018)

## **I. INTRODUCTION**

1. I have been engaged as an expert in this action by Samsung Electronics Co., Ltd. and Samsung Electronics America, Inc. (collectively “Samsung”). I expect to testify at trial regarding the matters set forth in this Second Supplemental Report, if asked about these matters by the Judge or the parties’ attorneys.

2. I previously submitted the Expert Report of Vijay K. Madiseti, Ph.D. Regarding the Invalidity of U.S. Patent Nos. 8,644,239 and 8,416,892 (“Opening Report”) on April 27, 2018 and the Supplemental Expert Report of Vijay K. Madiseti, Ph.D. Regarding the Invalidity on June 11, 2018 (“Supplemental Report”).

3. My compensation, background, relevant qualifications, and a technology background are detailed in Sections I, II, and III of my Opening Report. I incorporate those sections of my Opening Report into this Supplemental Report.

4. In my Opening Report, I explained that:

I understand that Huawei contends that the Asserted Claims of the ’892 patent are entitled to a April 30, 2007 priority date based on the earlier Chinese patent application CN 2007 1074200. *See* Huawei’s First Supplemental Disclosure of Asserted Claims and Infringement Contentions dated June 20, 2017 at § I(F). I understand that Huawei has not shown that it is entitled to this priority date, and it is my opinion that the Asserted Claims of the ’892 patent are not described in, or enabled by, the Chinese priority application listed on the face of the ’892 patent.

(Opening Report at ¶ 319.)

5. For the purposes of my analysis in my Opening Report, I applied both the April 2007 and April 2008 timeframes to my definition of a person of ordinary skill in the art. My analysis and opinions remain the same using either timeframe. I incorporate that analysis into the body of this Second Supplemental Report.

6. I also explained that “I have assumed the Asserted Claims are entitled to an April 22, 2008 priority date, the date of the earliest PCT application filing,” but expressly “reserve[d]

the right to rebut any showing by Huawei or its expert that the Asserted Claims are entitled to any priority date before the PCT application filing date of April 22, 2008.” (Opening Report at ¶ 320 & n. 13.)

7. After I provided my Opening Report on April 27, 2018, Huawei submitted the Expert Report of Dr. Venugopal V. Veeravalli Regarding Validity of U.S. Patent No. 8,416,892 (“Veeravalli ’892 Report”) on May 25, 2018. In the Veeravalli Report, Dr. Veeravalli asserts that “the Chinese [priority] patent application discloses the entire list of cyclic shift increments in the claims.” (Veeravalli ’892 Report at ¶ 72). Dr. Veeravalli therefore alleges that the Asserted Claims are entitled to the earlier priority date of CN priority application 200710074200.1. I disagree for the reasons stated in my Supplemental Report.

8. I understand that Dr. Veeravalli, at his deposition, provided testimony regarding my Supplemental Report. In particular, it was his opinion that the analysis contained in my Supplemental Report was flawed because, according to Dr. Veeravalli, the square bracket operator [x] used in some of the equations in the CN priority application and the ’892 patent specification is not a mere parenthesis or grouping operator, but rather is an operator signifying “rounding to the nearest whole integer.” Veeravalli Dep. 182-84. Dr. Veeravalli also testified: (1) that the constants used in my prior analysis were correct and (2) if you did not round to the nearest integer, you arrive at the values in the analysis contained in my Supplemental Report. *Id.* at 184:9-15, 187:7-12.

9. I disagree with Dr. Veeravalli’s opinions for several reasons. **First**, Dr. Veervalli does not cite any literature where square brackets are used to denote the “rounding to nearest integer” operation.<sup>1</sup> In my experience, square brackets, as in [x], are sometimes used to

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<sup>1</sup> Of course, any “rounding to the nearest integer” operation would have to specify

denote the floor function, but use of this notation has become disfavored because of confusion with the same square brackets  $[x]$  used for grouping. As a result of this confusion, the floor and ceiling functions are usually typeset with left and right square brackets where only the lower (for floor function) or upper (for ceiling function) horizontal bars are displayed, as in  $\lfloor x \rfloor$  (floor) or  $\lceil x \rceil$  (ceiling). Rounding to the nearest integer, on the other hand, is sometimes denoted by the  $[x]$  operator.<sup>2</sup>

10. **Second**, the English language translation of the CN priority application does not support Dr. Veeravalli's interpretation. The CN priority application—immediately after the equation relied upon by Dr. Veeravalli—reads “where  $[x]$  denotes *the maximum integer not greater than  $x$ .*” (SAMSUNG-HNDCA-000413691 (emphasis added)). The “maximum integer not greater than  $x$ ” is another way to represent the floor operation, not a “rounding to nearest integer” operation. The CN priority application thus unambiguously defines  $[x]$  as the floor operation.

11. **Third**, the '892 patent itself, in the corresponding disclosure beneath Eqn. (4), reads the same as the CN priority application but references the floor operator  $\lfloor x \rfloor$  instead of the square brackets: “where  $\lfloor x \rfloor$  denotes the maximum integer not greater than  $x$ .” ('892 patent at 6:65-7:4). Once again, “the maximum integer not greater than  $x$ ” is another way to represent

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whether to round up or down (a tie-breaking rule) in the case of a value exactly half-way between two integers.

<sup>2</sup> Even if Dr. Veeravalli were able to find some literature using square brackets to indicate a “rounding to the nearest integer” operation, that would not change my opinion. A person of ordinary skill in the art at the time of the alleged invention would have understood  $[x]$  as the grouping operator, similar to parentheses because that is the widely accepted meaning of  $[x]$  (and was the standard usage at the time of the alleged invention). Moreover, as described herein, to the extent the CN priority application or the '892 patent attempted to redefine the standard usage of this operator, it was unsuccessful.

the floor operation, not a “rounding to nearest integer” operation. There is no support in either the CN priority application or the specification of the ’892 patent for interpreting the square brackets operator [x] as a “rounding to nearest integer” operator, as Dr. Veeravalli suggests. Rather, it is still my opinion that [x] should be interpreted in its usual and customary way (as would have been understood by a person of ordinary skill in the art at the time of the alleged invention) as a grouping operator like parentheses. Based on this interpretation, Dr. Veeravalli agrees that my analysis contained in my Supplemental Report is correct.

12. In view of the foregoing it is still my opinion that there is no written description support in the CN priority application for the claimed set of cyclic shift increments present in the Asserted Claims. As a consequence, a person of ordinary skill in the art reading the CN priority application would not have understood that the patentee was in possession of the claimed invention as of that date. In addition, a person of ordinary skill in the art would not been able to make or use the claimed invention without undue experimentation in view of the disclosure in the CN priority application. The Asserted Claims are therefore not enabled, disclosed in, or supported by the written description of the CN priority application.

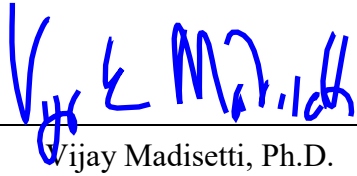
## **II. OTHER COMMENTS**

13. My opinions are subject to change based on additional opinions that Huawei’s experts may present and information I may receive in the future or additional work I may perform. With this in mind, based on the analysis I have conducted and for the reasons set forth below, I have preliminarily reached the conclusions and opinions in this Second Supplemental Report. I reserve the right to adjust or supplement my analysis in light of any critique of or comments on my Second Supplemental Report or alternative opinions advanced by or on behalf of Huawei.

14. At trial and as discussed above, I may rely on visual aids and demonstrative exhibits and may rely on analogies concerning elements of each of the Asserted Patents, the accused products, the prior art referenced in this Second Supplemental Report, or any related technologies.

15. In connection with my anticipated testimony in this action, I may use as exhibits various documents produced in this case that refer or relate to the matters discussed in this Second Supplemental Report. I have not yet selected the particular exhibits that might be used. In addition, I may create or assist in the creation of certain demonstrative evidence to assist me in testifying, and I reserve the right to do so, such as working computer systems, simulated cellular systems, code highlighting, claim charts, patent drawings, excerpts from patent specifications, file histories, interrogatory responses, deposition testimony and deposition exhibits, as well as charts, diagrams, videos and animated or computer-generated video to further support the positions in this Second Supplemental Report.

Executed in Atlanta, Georgia.

  
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Vijay Madisetti, Ph.D.

  
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Date